

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

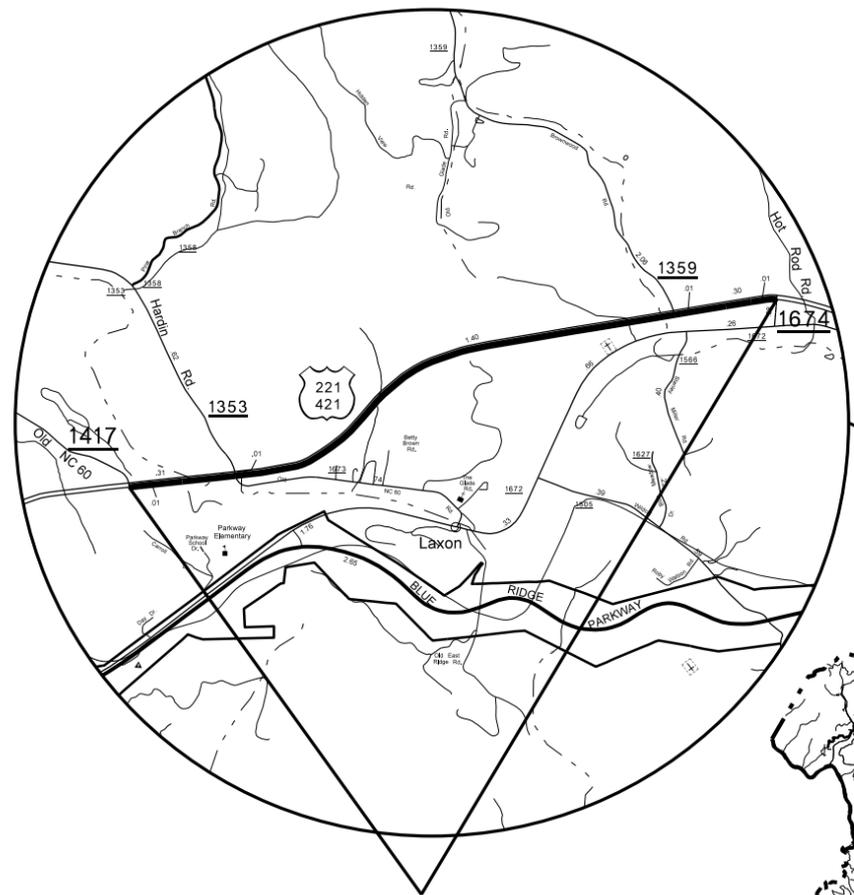
**2017**

**WATAUGA COUNTY**

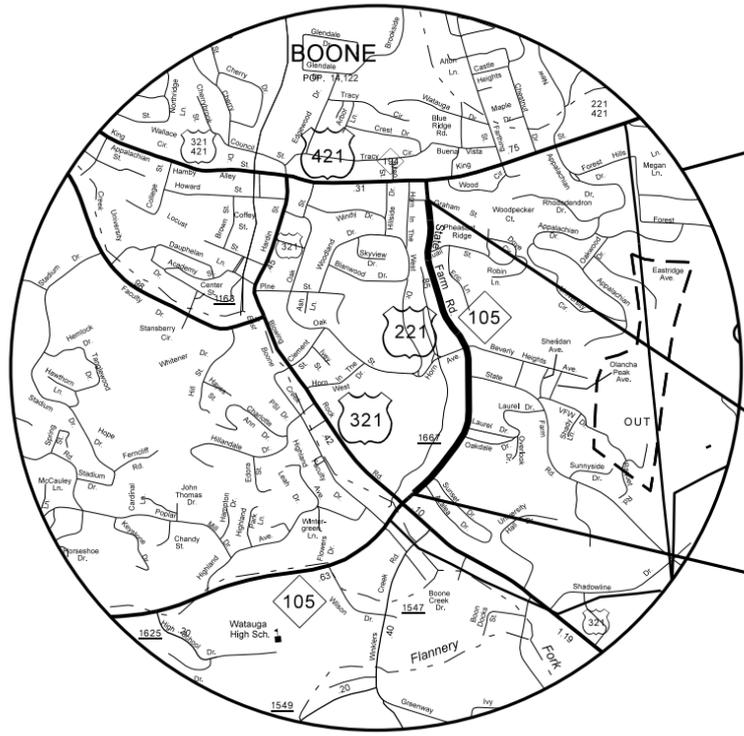
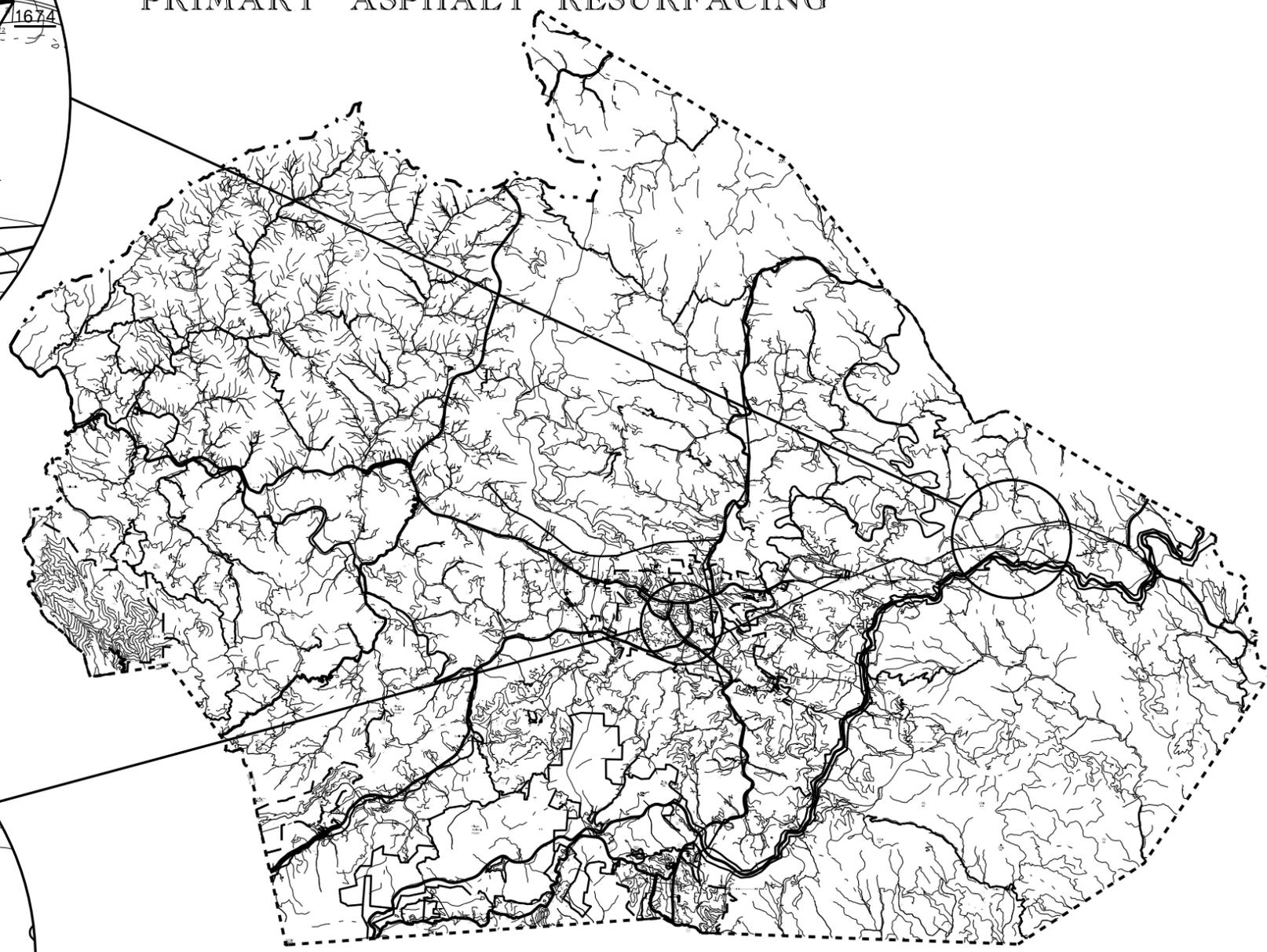
PRIMARY ASPHALT RESURFACING



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**MAP #P US 221 / 421 (2.01 MILES)  
FROM SR 1417 TO SR 1674**



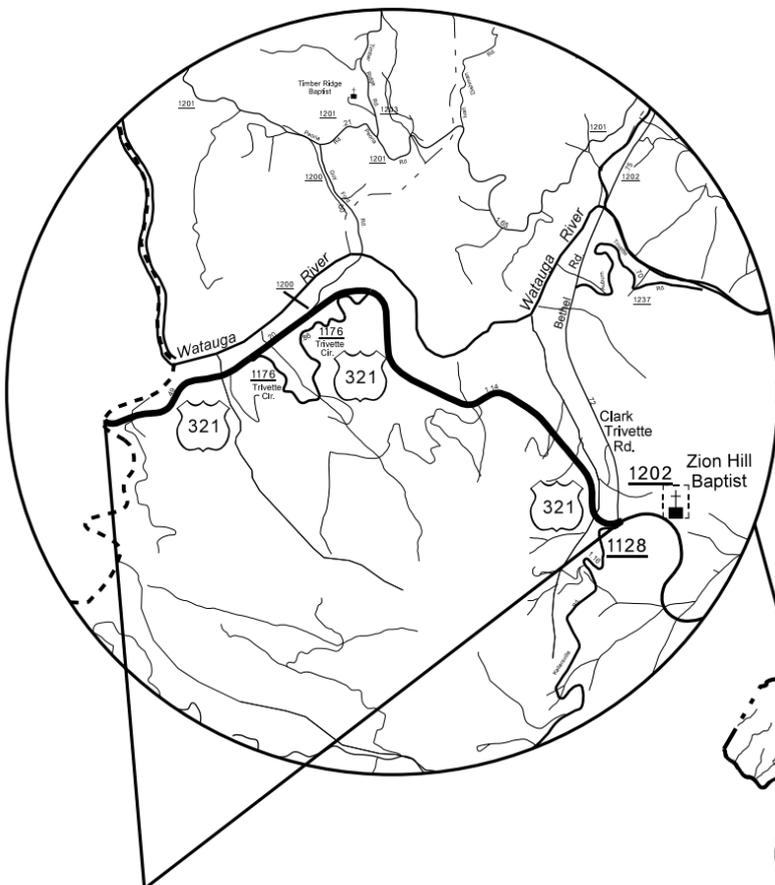
**MAP #1 US 221 (0.83 MILES)  
FROM US 321 TO US 421**

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

2017

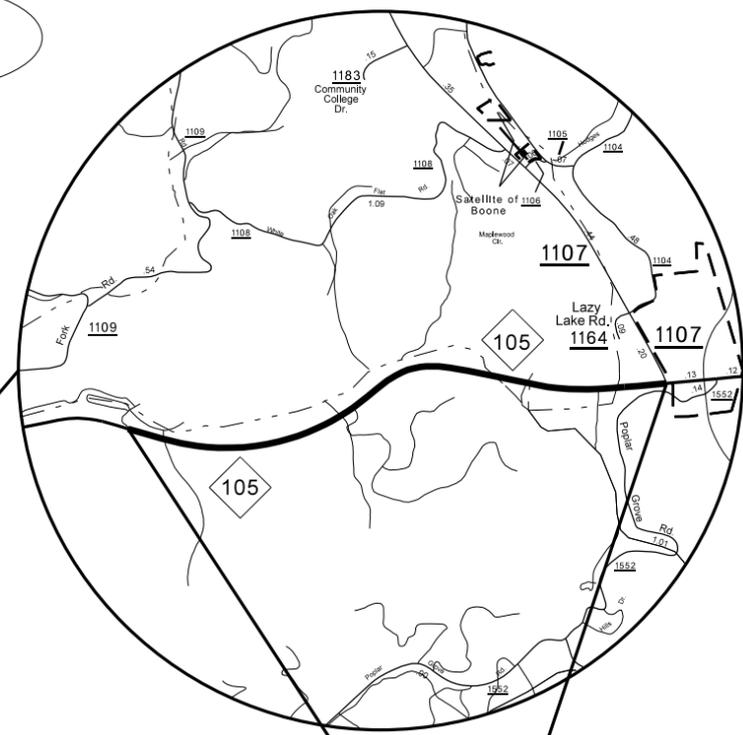
**WATAUGA COUNTY**

PRIMARY ASPHALT RESURFACING



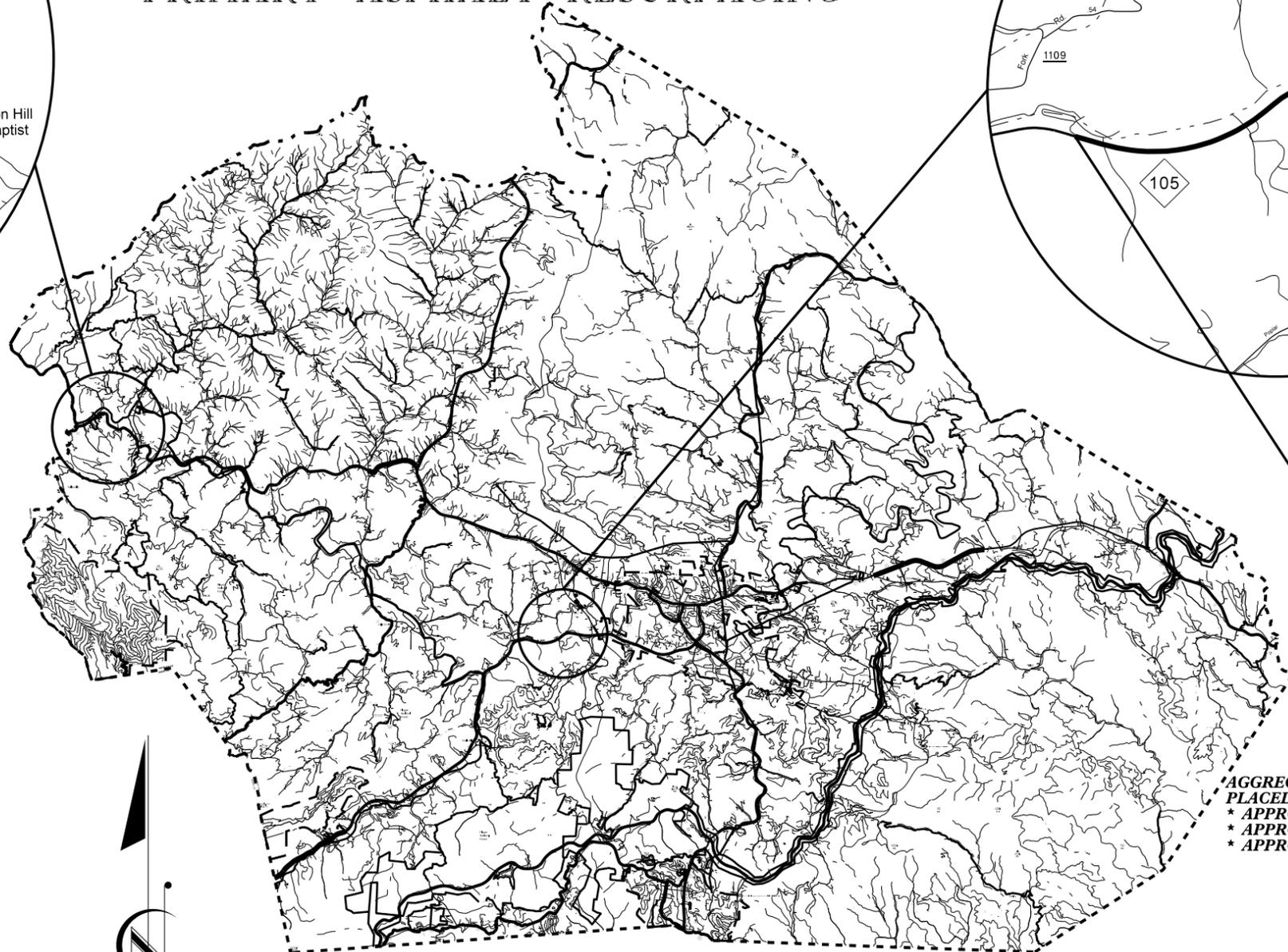
**MAP #3 US 321 (2.06 MILES)  
FROM SR 1128 TO AVERY CO. LINE**

- AGGREGATE SHOULDER BORROW TO BE PLACED AT LIVE STREAMS: SEE DETAIL**
- \* APPROX. STATION 1+50 TO 2+50 LT & RT
  - \* APPROX. STATION 16+50 TO 17+50 LT & RT
  - \* APPROX. STATION 31+50 TO 32+50 LT & RT
  - \* APPROX. STATION 76+00 TO 77+00 LT & RT
  - \* APPROX. STATION 85+50 TO 86+50 LT & RT
  - \* APPROX. STATION 105+00 TO 106+50 LT & RT

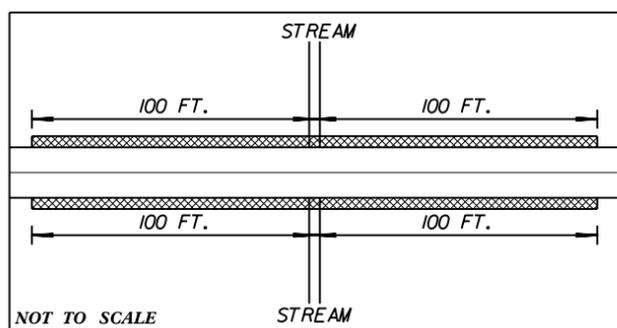


**MAP #4 NC 105 (1.42 MILES)  
FROM SR 1107 TO  
END THREE LANE**

- AGGREGATE SHOULDER BORROW TO BE PLACED AT LIVE STREAMS: SEE DETAIL**
- \* APPROX. STATION 15+50 TO 16+50 LT & RT
  - \* APPROX. STATION 36+00 TO 38+00 LT & RT
  - \* APPROX. STATION 62+00 TO 63+00 LT & RT



**\*DETAIL FOR AGGREGATE SHOULDER BORROW  
AT STREAM CROSSING**



HATCHED AREA SHOWS PLACEMENT OF AGGREGATE SHOULDER BORROW



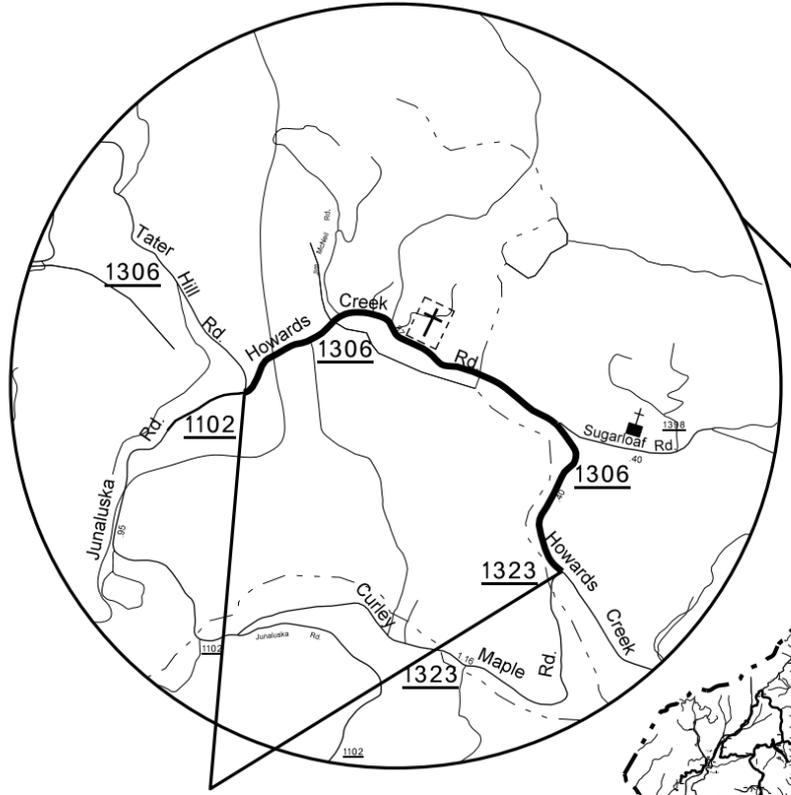
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STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

2017

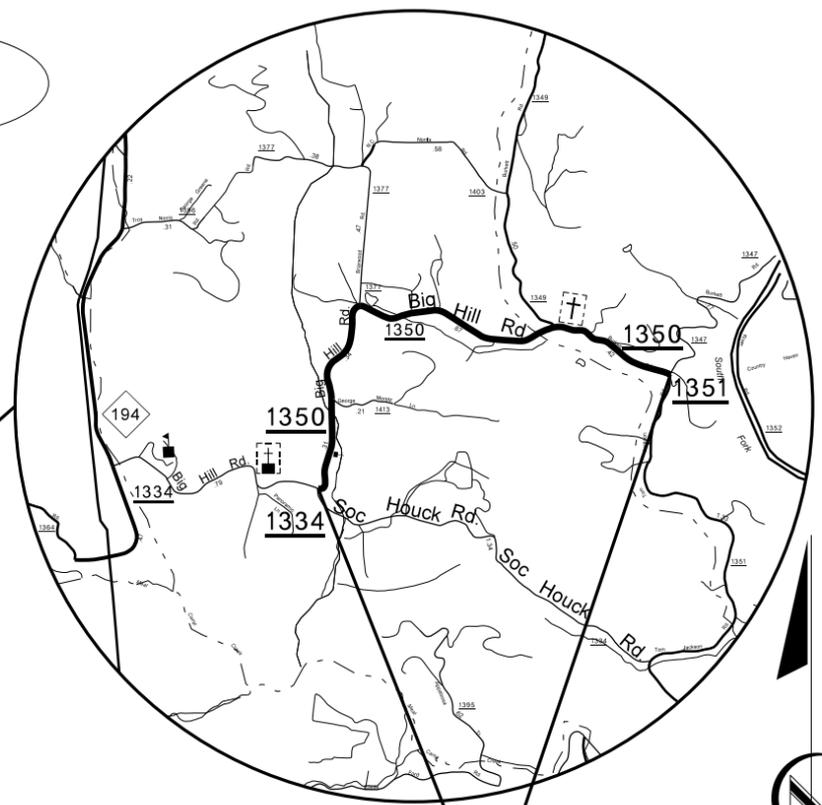
**WATAUGA COUNTY**

SECONDARY ASPHALT RESURFACING



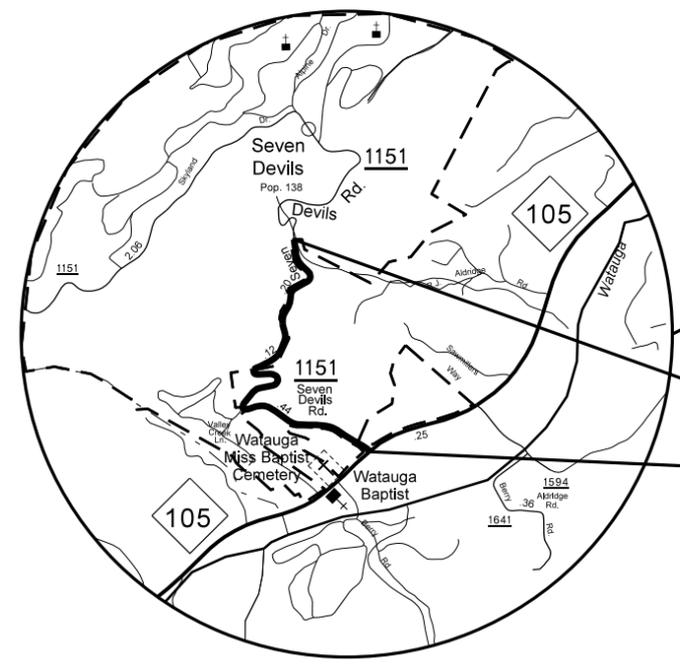
**MAP #6 SR 1306 (1.26 MILES)  
FROM SR 1323 TO SR 1102**

- AGGREGATE SHOULDER BORROW TO BE PLACED AT LIVE STREAMS: SEE DETAIL
- \* APPROX. STATION 2+00 TO 14+00 LT
  - \* APPROX. STATION 15+00 TO 17+00 RT
  - \* APPROX. STATION 25+00 TO 32+00 RT
  - \* APPROX. STATION 31+00 TO 32+00 LT
  - \* APPROX. STATION 33+00 TO 35+00 LT
  - \* APPROX. STATION 44+00 TO 46+00 LT & RT
  - \* APPROX. STATION 52+00 TO 53+50 LT & RT
  - \* APPROX. STATION 56+00 TO 58+00 RT



**MAP #7 SR 1306 (1.26 MILES)  
FROM SR 1323 TO SR 1102**

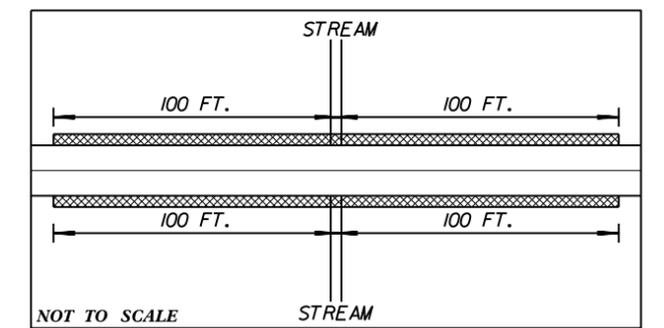
- AGGREGATE SHOULDER BORROW TO BE PLACED AT LIVE STREAMS: SEE DETAIL
- \* APPROX. STATION 3+00 TO 4+00 LT & RT
  - \* APPROX. STATION 13+00 TO 14+00 RT
  - \* APPROX. STATION 13+50 TO 16+00 LT
  - \* APPROX. STATION 39+00 TO 40+00 LT & RT
  - \* APPROX. STATION 45+50 TO 46+50 LT & RT
  - \* APPROX. STATION 65+00 TO 66+00 LT & RT
  - \* APPROX. STATION 68+00 TO 69+00 LT & RT
  - \* APPROX. STATION 72+00 TO 73+00 RT



**MAP #5 SR 1151 (0.73 MILES)  
FROM NC 105 TO  
SEVEN DEVILS CITY LIMITS**

- AGGREGATE SHOULDER BORROW TO BE PLACED AT LIVE STREAMS: SEE DETAIL
- \* APPROX. STATION 11+50 TO 12+50 LT & RT
  - \* APPROX. STATION 16+25 TO 17+25 LT & RT
  - \* APPROX. STATION 33+00 TO 34+00 LT & RT

**\*DETAIL FOR AGGREGATE SHOULDER BORROW AT STREAM CROSSING**



NOT TO SCALE  
HATCHED AREA SHOWS PLACEMENT OF AGGREGATE SHOULDER BORROW

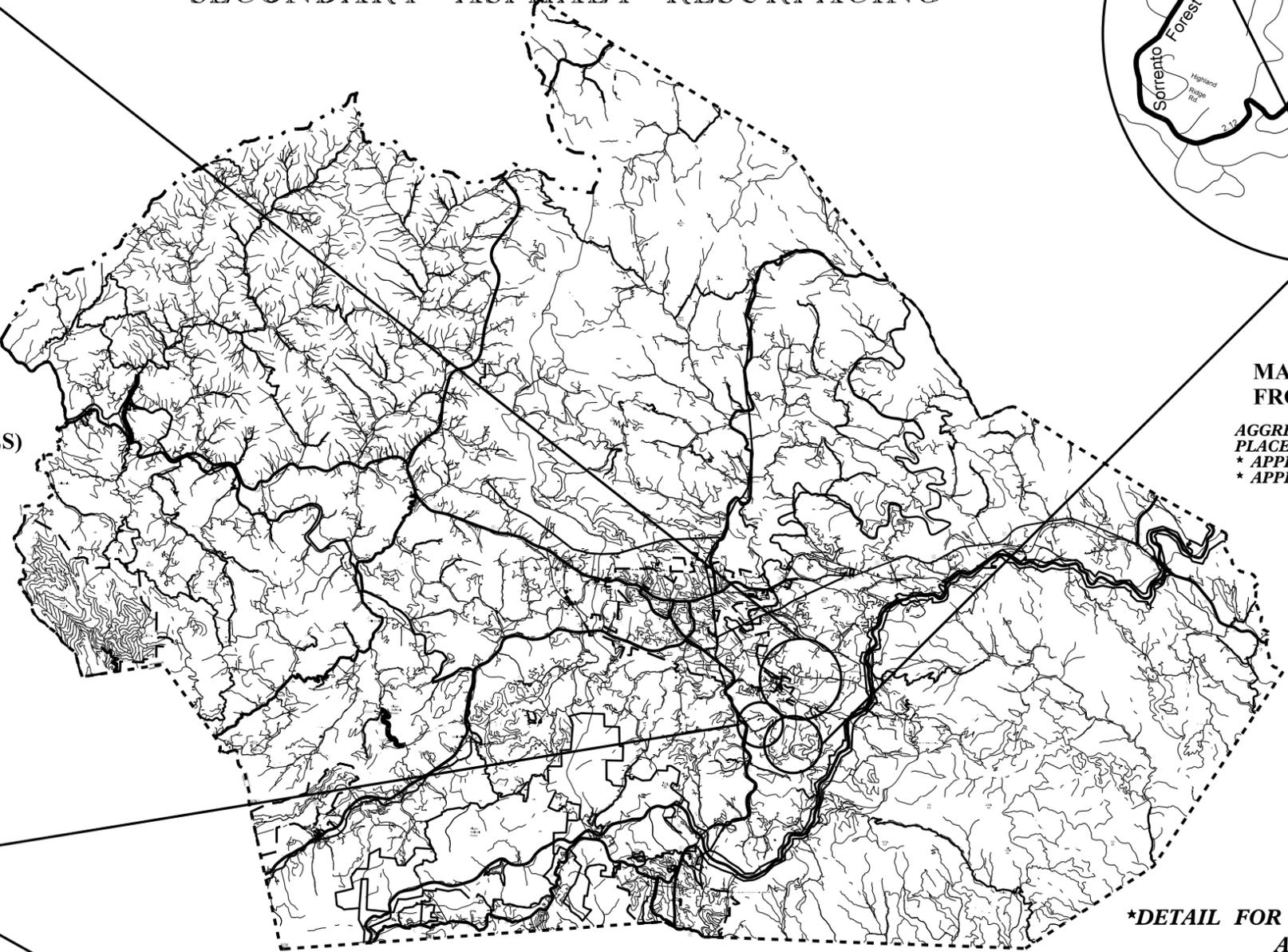
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8/17/99

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

2017

**WATAUGA COUNTY**  
SECONDARY ASPHALT RESURFACING



**MAP #8 SR 1524 (0.66 MILES)  
FROM SR 1523 TO SR 1656**

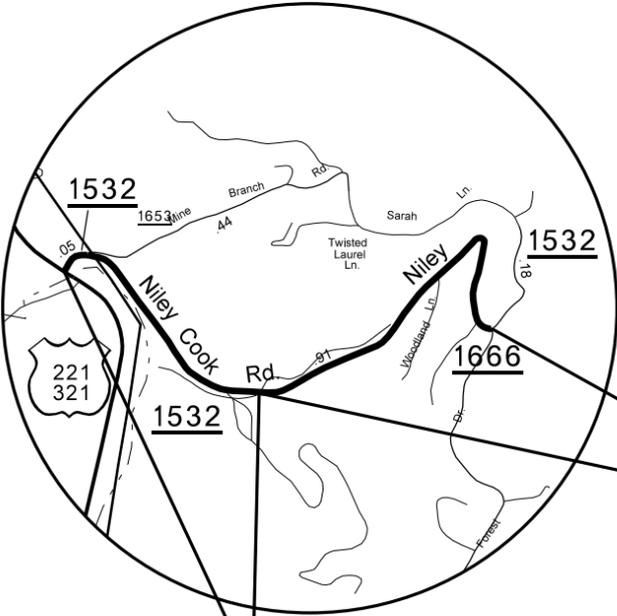
AGGREGATE SHOULDER BORROW TO BE  
PLACED AT LIVE STREAMS: SEE DETAIL  
\* APPROX. STATION 11+50 TO 12+50 LT & RT  
\* APPROX. STATION 16+50 TO 20+50 RT  
\* APPROX. STATION 16+50 TO 17+50 LT

**MAP #9 SR 1524 (0.46 MILES)  
FROM SR 1656 TO SR 1608**

AGGREGATE SHOULDER BORROW TO BE  
PLACED AT LIVE STREAMS: SEE DETAIL  
\* APPROX. STATION 4+00 TO 5+00 LT & RT  
\* APPROX. STATION 7+00 TO 8+00 LT & RT  
\* APPROX. STATION 11+50 TO 12+50 LT  
\* APPROX. STATION 24+00 TO 24+20 LT & RT

**MAP #12 SR 1666 (2.13 MILES)  
FROM SR 1532 TO SR 1525**

AGGREGATE SHOULDER BORROW TO BE  
PLACED AT LIVE STREAMS: SEE DETAIL  
\* APPROX. STATION 56+50 TO 57+50 LT & RT  
\* APPROX. STATION 62+50 TO 64+50 LT & RT



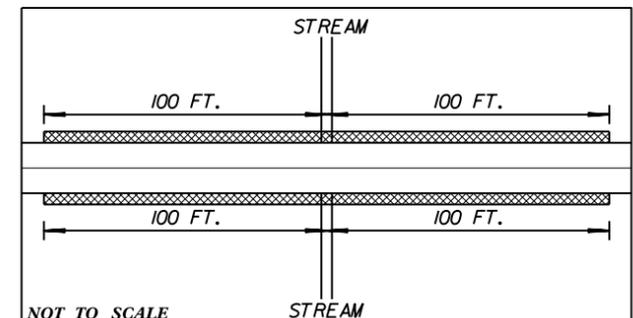
**MAP #10 SR 1532 (0.51 MILES)  
FROM US 321 TO END 20' PAVEMENT**

AGGREGATE SHOULDER BORROW TO BE  
PLACED AT LIVE STREAMS: SEE DETAIL  
\* APPROX. STATION 0+00 TO 8+00 RT  
\* APPROX. STATION 14+50 TO 17+00 RT  
\* APPROX. STATION 17+00 TO 23+00 LT

**MAP #11 SR 1532 (0.71 MILES)  
FROM END 20' PAVEMENT TO SR 1666**

AGGREGATE SHOULDER BORROW TO BE  
PLACED AT LIVE STREAMS: SEE DETAIL  
\* APPROX. STATION 0+00 TO 14+00 LT

**\*DETAIL FOR AGGREGATE SHOULDER BORROW  
AT STREAM CROSSING**

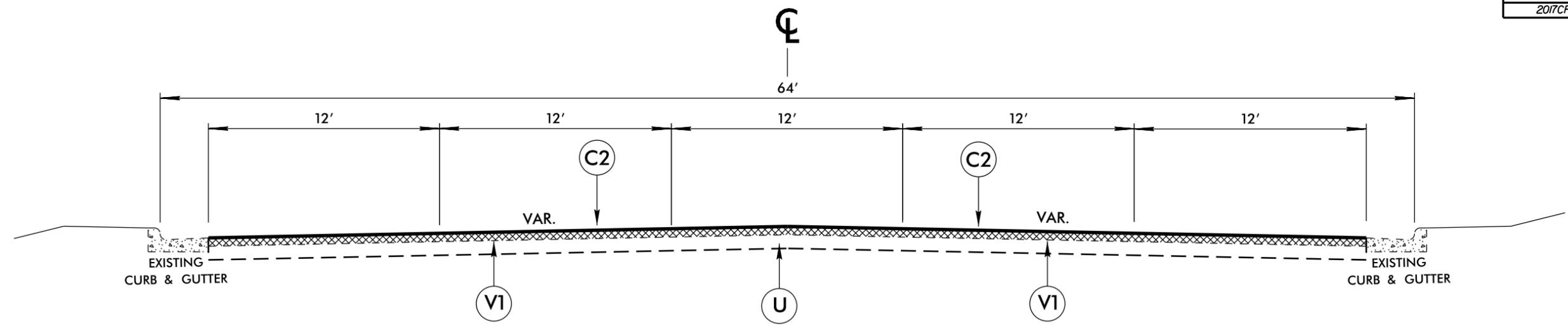


HATCHED AREA SHOWS PLACEMENT  
OF AGGREGATE SHOULDER BORROW

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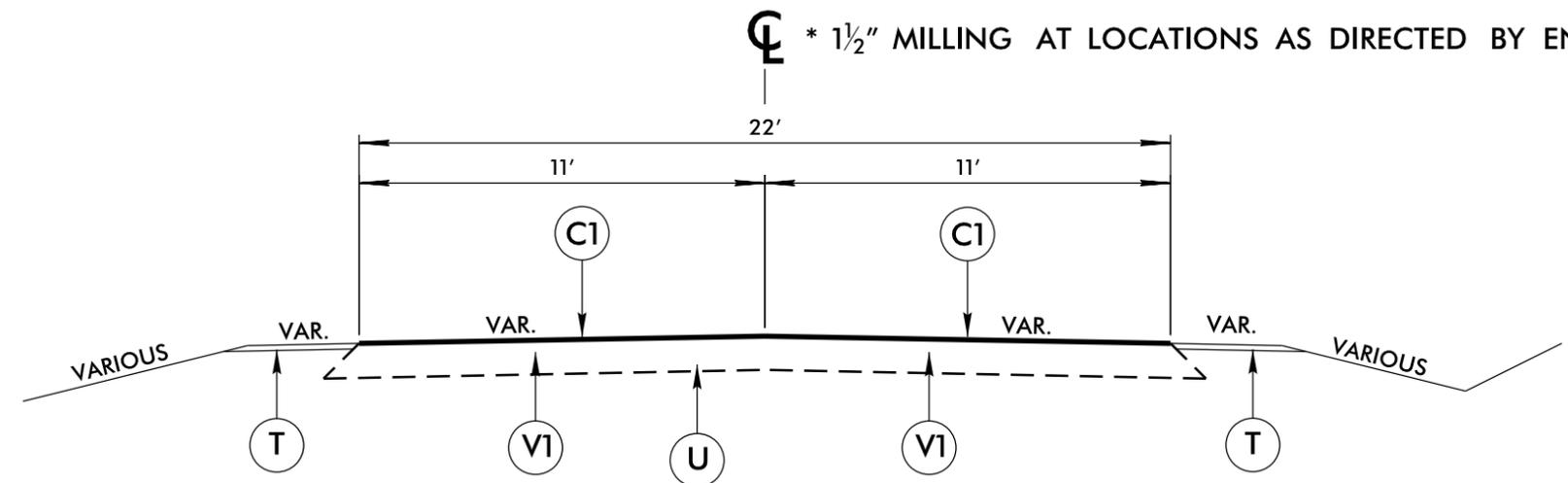
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### TYPICAL SECTION NO. 1

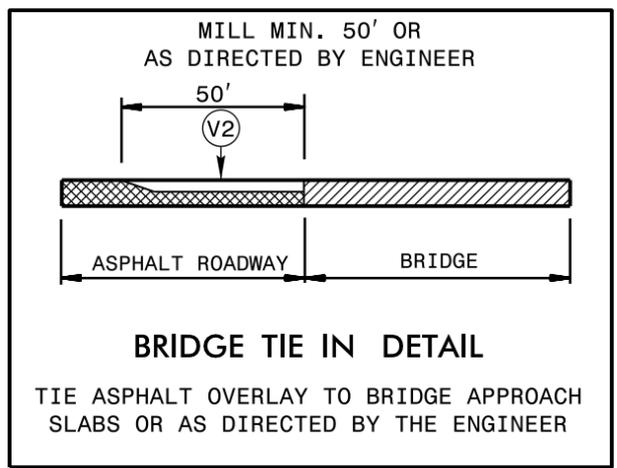
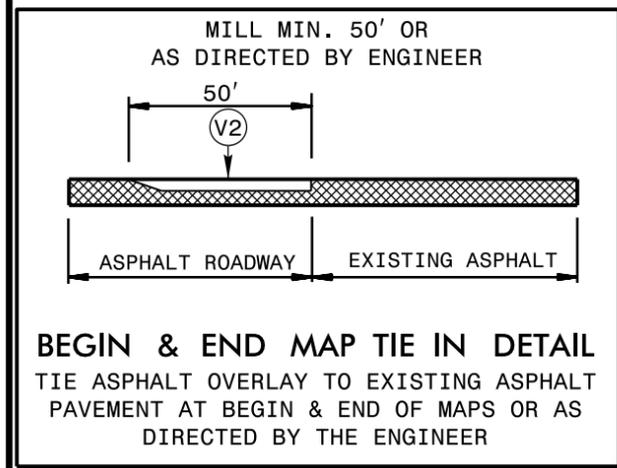
MAP 1 - US 221 FROM US 321 TO US 421



### TYPICAL SECTION NO. 3

MAP 3 - US 321 FROM SR 1128 TO AVERY CO. LINE

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	INCIDENTAL MILLING



**WATAUGA COUNTY**  
PRIMARY AND SECONDARY RESURFACING

DIVISION II

REVISIONS	INT.	DATE

N.C. DEPARTMENT of TRANSPORTATION  
DIVISION of HIGHWAYS  
DIVISION ELEVEN

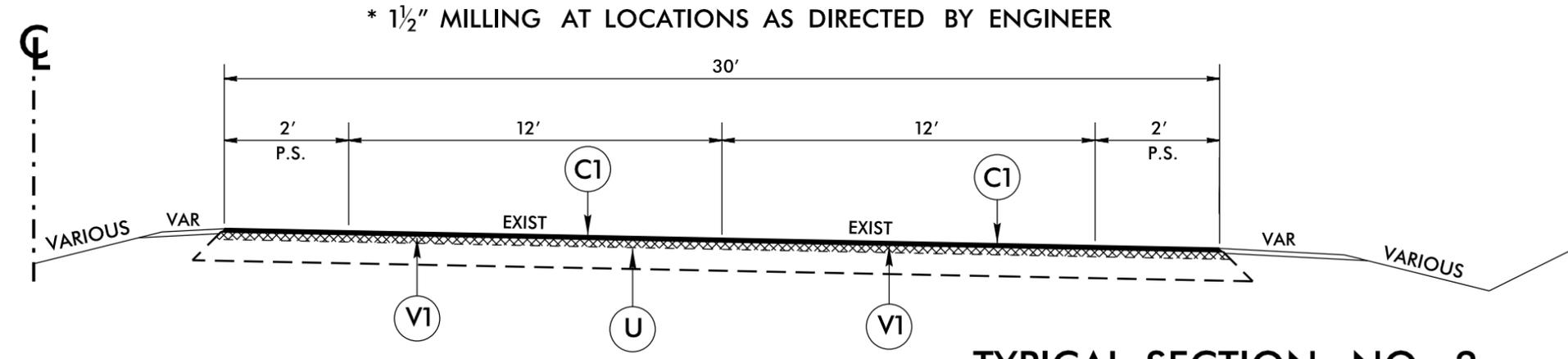
SCALE: N/A DATE: 02/2016

PREPARED BY: GREG KIRBY

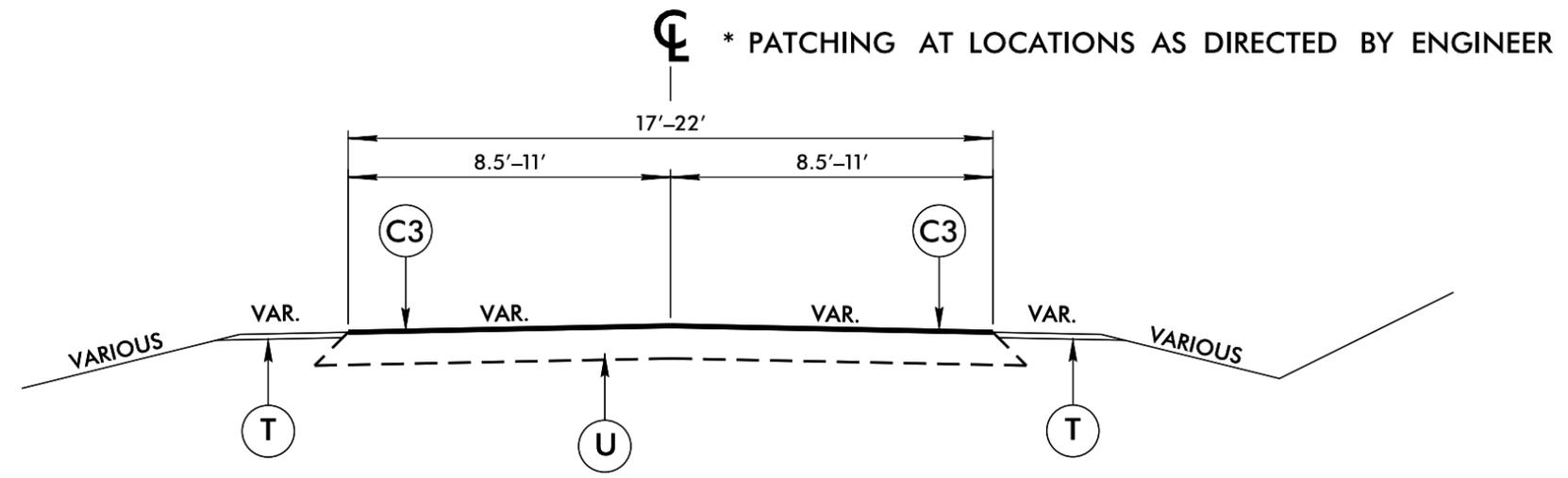
REVIEWED BY:

REVIEWED BY:

8/17/99



**TYPICAL SECTION NO. 2**  
 MAP 2 – US 221 /421 FROM SR 1417 TO SR 1674



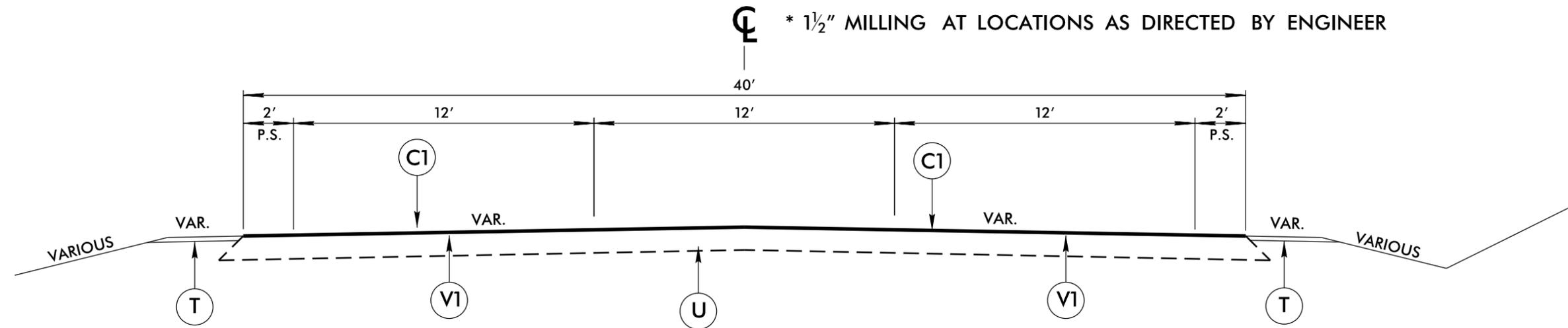
**TYPICAL SECTION NO. 5**

- MAP 5 – SR 1151 FROM NC 105 TO SEVEN DEVILS CITY LIMITS
- MAP 6 – SR 1306 FROM SR 1323 TO SR 1102
- MAP 7 – SR 1350 FROM SR 1334 TO SR 1351
- MAP 8 – SR 1524 FROM SR 1523 TO SR 1656
- MAP 9 – SR 1524 FROM SR 1656 TO SR 1608
- MAP 10 – SR 1532 FROM US 321 TO END 20' PAVEMENT
- MAP 11 – SR 1532 FROM END 20' PAVEMENT TO SR 1666
- MAP 12 – SR 1666 FROM SR 1532 TO SR 1525

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	INCIDENTAL MILLING

<b>WATAUGA COUNTY</b> PRIMARY AND SECONDARY RESURFACING		
DIVISION II		
REVISIONS	INT.	DATE
N.C. DEPARTMENT of TRANSPORTATION DIVISION of HIGHWAYS DIVISION ELEVEN		SCALE: N/A    DATE: 02/2016 PREPARED BY: GREG KIRBY REVIEWED BY:

8/17/99



\* 1 1/2" MILLING AT LOCATIONS AS DIRECTED BY ENGINEER

### TYPICAL SECTION NO. 4

MAP 4 - MAP 4 NC 105 FROM SR 1107 TO END THREE LANE

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING EXISTING ASPHALT PAVEMENT AT DEPTH OF 1 1/2"
V2	INCIDENTAL MILLING

<b>WATAUGA COUNTY</b> PRIMARY AND SECONDARY RESURFACING		
DIVISION II		
REVISIONS	INT.	DATE
N.C. DEPARTMENT of TRANSPORTATION DIVISION of HIGHWAYS DIVISION ELEVEN		SCALE: N/A    DATE: 02/2016 PREPARED BY: GREG KIRBY REVIEWED BY: REVIEWED BY:

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.11.10.10951, 2017CPT.11.11.20951		

### SUMMARY OF QUANTITIES

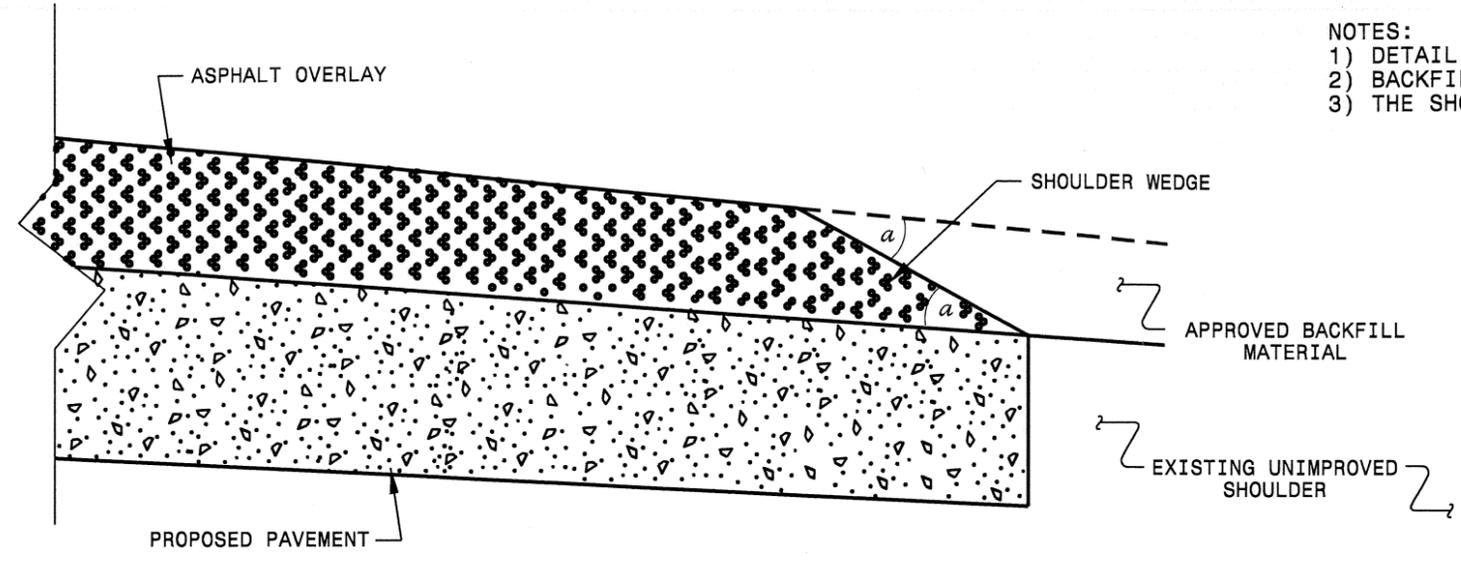
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARMMX ASPHALT REQUIRED	LENGTH M	WIDTH FT	BORROW CY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SM	1 1/2" MILLING SY	INCIDENTAL MILLING SY	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, S9.5C TONS	SURFACE COURSE, SF9.5A TONS	ASPHALT BINDER FOR PLANT MX TONS	PATCHING EXISTING PAVEMENT TONS	ADI. OF MANHOLES EA	PORTABLE LIGHTING LS	ADI. OF METER OR VALVE BOX EA	SEED & MULCHING AC	PAVED TRENCHING (1, 2") LF	UNPAVED TRENCHING (1, 2") LF	JUNCTION BOX (STANDARD SIZE) EA	INDUCTIVE LOOP LF	LEAD-IN CABLE LF			
2017CPT.11.10.10951	Watauga	1	US 221	FROM US 321 TO US 421	1	5	MU	NO	NO	0.83	60				30,000			2,760		163		5	1	5		50	50	1	464	200			
2017CPT.11.10.10951	Watauga	2	US 221/421	FROM SR 1417 TO SR 1674	2	2	MD	NO	NO	2.01	30	201	50	2.01	8,000	1,000	4,050			243				0.80									
2017CPT.11.10.10951	Watauga	3	US 321	FROM SR 1128 TO AVERY CO. LINE	3	2	2WU	NO	NO	2.06	22	412	125	4.06	3,000	250	2,550			153				1.50									
2017CPT.11.10.10951	Watauga	4	NC 105	FROM SR 1107 TO END THREE LANE	4	3	MU	YES	NO	1.42	40	284	100	2.84		500	2,950			177	300		*		1.00	50	50	1	376	100			
<b>TOTAL FOR PROJ NO. 2017CPT.11.10.10951</b>										<b>6.32</b>		<b>897</b>	<b>275</b>	<b>8.91</b>	<b>41,000</b>	<b>1,750</b>	<b>9,550</b>	<b>2,760</b>		<b>736</b>	<b>300</b>	<b>5</b>	<b>1</b>	<b>5</b>	<b>3.30</b>	<b>100</b>	<b>100</b>	<b>2</b>	<b>840</b>	<b>300</b>			
2017CPT.11.11.20951	Watauga	5	SR 1151	FROM NC 105 TO SEVEN DEVILS CITY LIMITS	5	2	2WU	NO	NO	0.73	22	146	50	1.46		250			930	62	100				0.50								
2017CPT.11.11.20951	Watauga	6	SR 1306	FROM SR 1323 TO SR 1102	5	2	2WU	NO	NO	1.26	18	252	100	2.52		200			1,225	82	100				0.90								
2017CPT.11.11.20951	Watauga	7	SR 1350	FROM SR 1334 TO SR 1351	5	2	2WU	NO	NO	1.73	17	346	100	3.46		600			1,550	104	100				1.25								
2017CPT.11.11.20951	Watauga	8	SR 1524	FROM SR 1523 TO SR 1656	5	2	2WU	NO	NO	0.66	18	132	50	1.32		400			620	42					0.50								
2017CPT.11.11.20951	Watauga	9	SR 1524	FROM SR 1656 TO SR 1608	5	2	2WU	NO	NO	0.46	18	92	50	0.92		400			470	31	75	1			0.35								
2017CPT.11.11.20951	Watauga	10	SR 1532	FROM US 321 TO END 20' PAVEMENT	5	2	2WU	NO	NO	0.51	20	102	50	1.02		200			500	33					0.40								
2017CPT.11.11.20951	Watauga	11	SR 1532	FROM END OF 20' PAVEMENT TO SR 1666	5	2	2WU	NO	NO	0.71	18	90	50	0.90		200			700	47					0.35								
2017CPT.11.11.20951	Watauga	12	SR 1666	FROM SR 1532 TO SR 1525	5	2	2WU	NO	NO	2.13	18	426	150	4.26		200			2,025	136					1.55								
<b>TOTAL FOR PROJ NO. 2017CPT.11.11.20951</b>										<b>8.19</b>		<b>1,586</b>	<b>600</b>	<b>15.86</b>		<b>2,450</b>			<b>8,020</b>	<b>537</b>	<b>375</b>	<b>1</b>			<b>5.80</b>								
<b>GRAND TOTAL</b>										<b>14.51</b>		<b>2,483</b>	<b>875</b>	<b>24.77</b>	<b>41,000</b>	<b>4,200</b>	<b>9,550</b>	<b>2,760</b>	<b>8,020</b>	<b>1,273</b>	<b>675</b>	<b>6</b>	<b>1</b>	<b>5</b>	<b>9.10</b>	<b>100</b>	<b>100</b>	<b>2</b>	<b>840</b>	<b>300</b>			

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.11.10.10951, 2017CPT.11.11.20951		

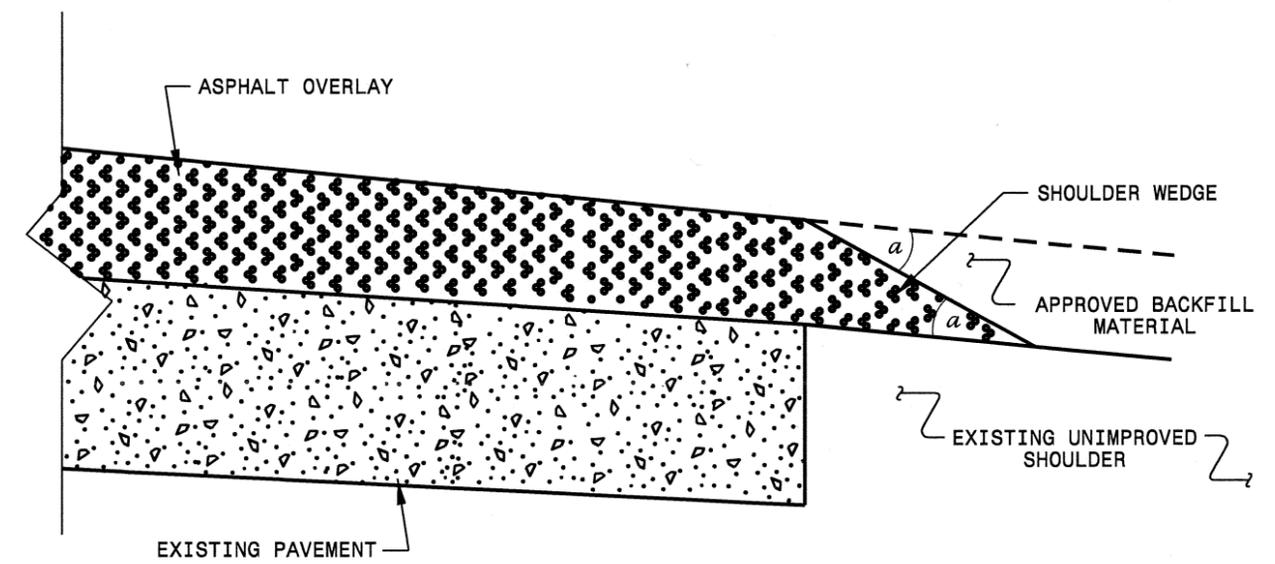
**THERMOPLASTIC AND PAINT QUANTITIES**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	441300000-E	445700000-N	481000000-E		482000000-E		483500000-E	484500000-N			490500000-N	
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING SF	TEMPORARY TRAFFIC CONTROL LS	4" WHITE PAINT LF	4" YELLOW PAINT LF	8" WHITE PAINT LF	8" YELLOW PAINT LF	24" WHITE PAINT LF	PAINT LT ARROW EA	PAINT RT ARROW EA	PAINT STR & RT ARROW EA	PAINT STR ARROW EA	SNOW PLOWABLE MARKERS EA
2017CPT.11.10.10951	Watauga	1	US 221	FROM US 321 TO US 421	1	5	MU	0.83	60	154	1	5,500	21,000	150	100	300	20	2	2	500	
2017CPT.11.10.10951	Watauga	2	US 221/421	FROM SR 1417 TO SR 1674	2	2	MD	2.01	30	134	*	31,000	22,000				20	10		20	175
2017CPT.11.10.10951	Watauga	3	US 321	FROM SR 1128 TO AVERY CO. LINE	3	2	2WU	2.06	22	164	*	43,000	43,000								150
2017CPT.11.10.10951	Watauga	4	NC 105	FROM SR 1107 TO END THREE LANE	4	3	MU	1.42	40	96	*	34,000	30,000							2	200
<b>TOTAL FOR PROJ NO. 2017CPT.11.10.10951</b>									<b>6.32</b>	<b>548</b>		<b>113,500</b>	<b>116,000</b>	<b>150</b>	<b>100</b>	<b>300</b>	<b>40</b>	<b>12</b>	<b>2</b>	<b>22</b>	<b>1,025</b>
											<b>229,500</b>		<b>250</b>		<b>76</b>						
2017CPT.11.11.20951	Watauga	5	SR 1151	FROM NC 105 TO SEVEN DEVILS CITY LIMITS	5	2	2WU	0.73	22	64	*	15,700	15,700								
2017CPT.11.11.20951	Watauga	6	SR 1306	FROM SR 1323 TO SR 1102	5	2	2WU	1.26	18		*	26,612	26,612								
2017CPT.11.11.20951	Watauga	7	SR 1350	FROM SR 1334 TO SR 1351	5	2	2WU	1.73	17	136	*	35,548	35,548								
2017CPT.11.11.20951	Watauga	8	SR 1524	FROM SR 1523 TO SR 1656	5	2	2WU	0.66	18	72	*	13,828	13,828								45
2017CPT.11.11.20951	Watauga	9	SR 1524	FROM SR 1656 TO SR 1608	5	2	2WU	0.46	18	64	*	9,747	9,747			200					30
2017CPT.11.11.20951	Watauga	10	SR 1532	FROM US 321 TO END 20' PAVEMENT	5	2	2WU	0.51	20	64	*	10,772	10,772								
2017CPT.11.11.20951	Watauga	11	SR 1532	FROM END OF 20' PAVEMENT TO SR 1666	5	2	2WU	0.71	18	64	*	9,420	9,420								
2017CPT.11.11.20951	Watauga	12	SR 1666	FROM SR 1532 TO SR 1525	5	2	2WU	2.13	18	164	*	44,464	44,464								
<b>TOTAL FOR PROJ NO. 2017CPT.11.11.20951</b>									<b>8.19</b>	<b>628</b>		<b>166,091</b>	<b>166,091</b>			<b>200</b>					<b>75</b>
											<b>332,182</b>										
<b>GRAND TOTAL</b>									<b>14.51</b>	<b>1,176</b>	<b>1</b>	<b>279,591</b>	<b>282,091</b>	<b>150</b>	<b>100</b>	<b>500</b>	<b>40</b>	<b>12</b>	<b>2</b>	<b>22</b>	<b>1,100</b>
											<b>561,682</b>		<b>250</b>		<b>76</b>						

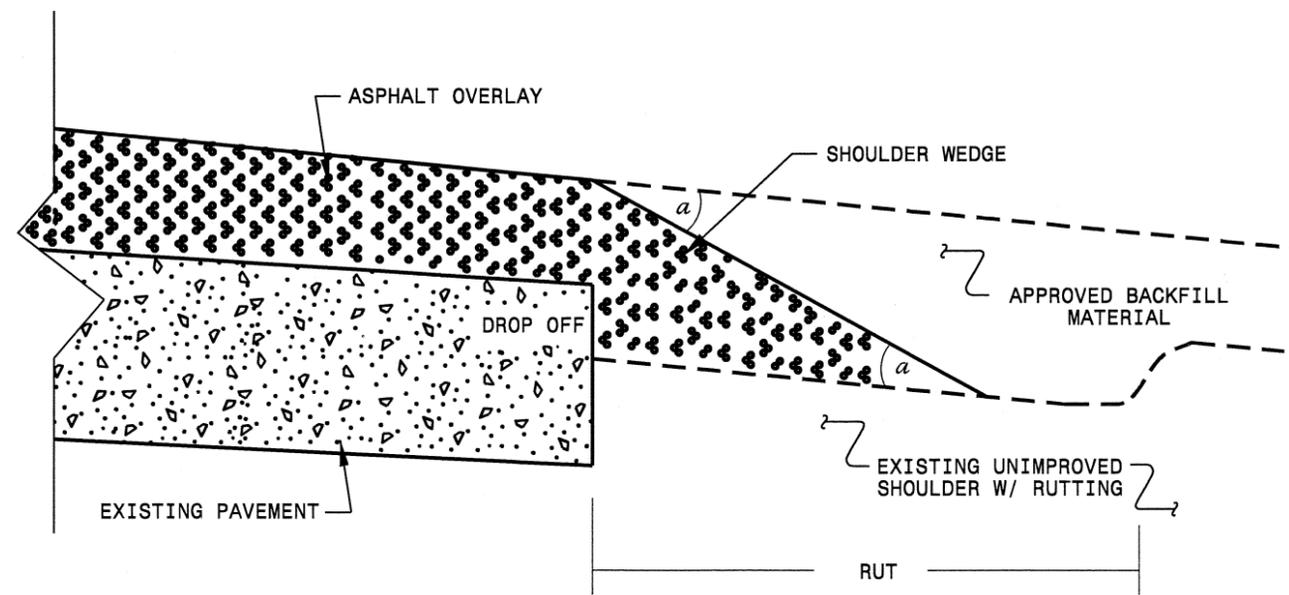
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ Widening or  
 with Existing Paved Shoulder having no dropoffs)



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ NO Widening)



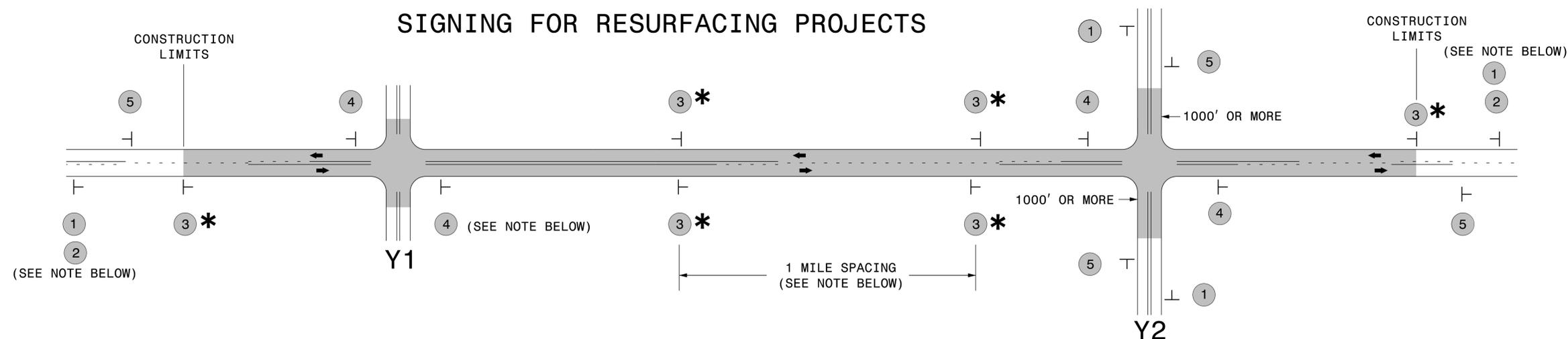
**SHOULDER WEDGE DETAIL**  
 (Resurfacing Adjacent to  
 Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950 FAX 919-250-4119	
<b>SHOULDER WEDGE DETAILS</b>	
ORIGINAL BY: T.SPELL	DATE: 7-19-11
MODIFIED BY:	DATE: 10/18/12
CHECKED BY:	DATE:
FILE SPEC.: s:\user\details\stand\shoulderwedgedetail.dgn	

SYSTEMS CONSULTANTS  
 11/18/12

## SIGNING FOR RESURFACING PROJECTS



LEGEND	
	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

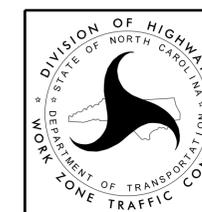
### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION		
1 2		<p style="text-align: center;"><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</b></p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <p style="text-align: center;">WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>W20-1 48" X 48"</p> </div> <div style="text-align: center;"> <p>W20-7 A 48" X 48"</p> </div> </div> <p style="text-align: center;">PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
3 *		
4		
5		

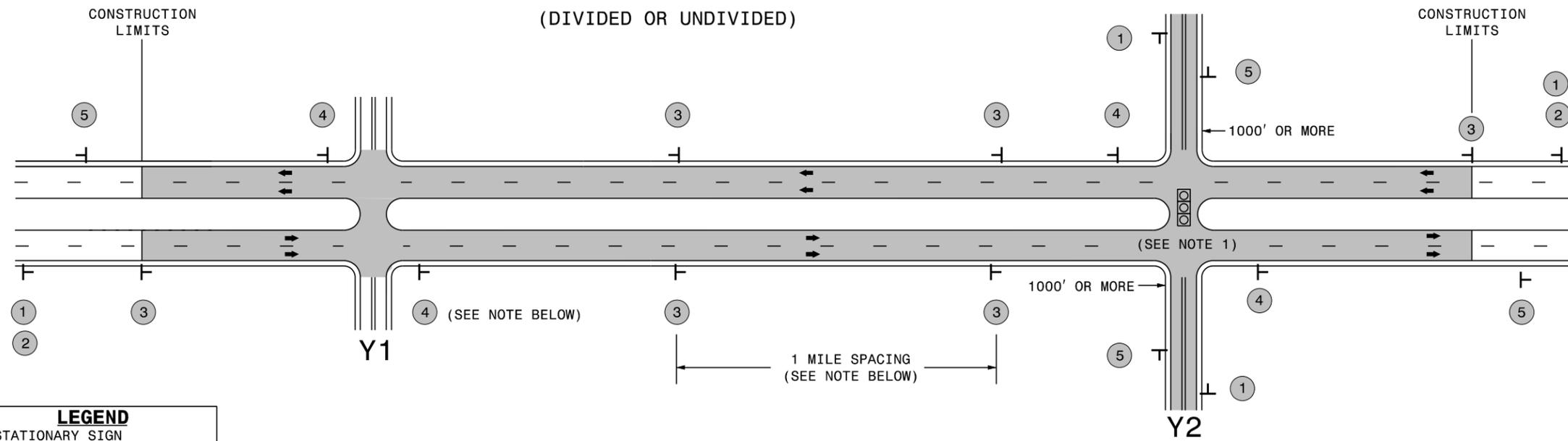
### \* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

SUBSTITUTE LOW/SOFT SHOULDER SIGNS BY ALTERNATING THE FOLLOWING TWO SIGNS:  
STARTING WITH "UNMARKED PAVEMENT AHEAD" (SP 06026) FOLLOWED BY "LOOSE GRAVEL" (W8-7).



**RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS**

## SIGNING FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS WITH SHOULDER SECTIONS (DIVIDED OR UNDIVIDED)



LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

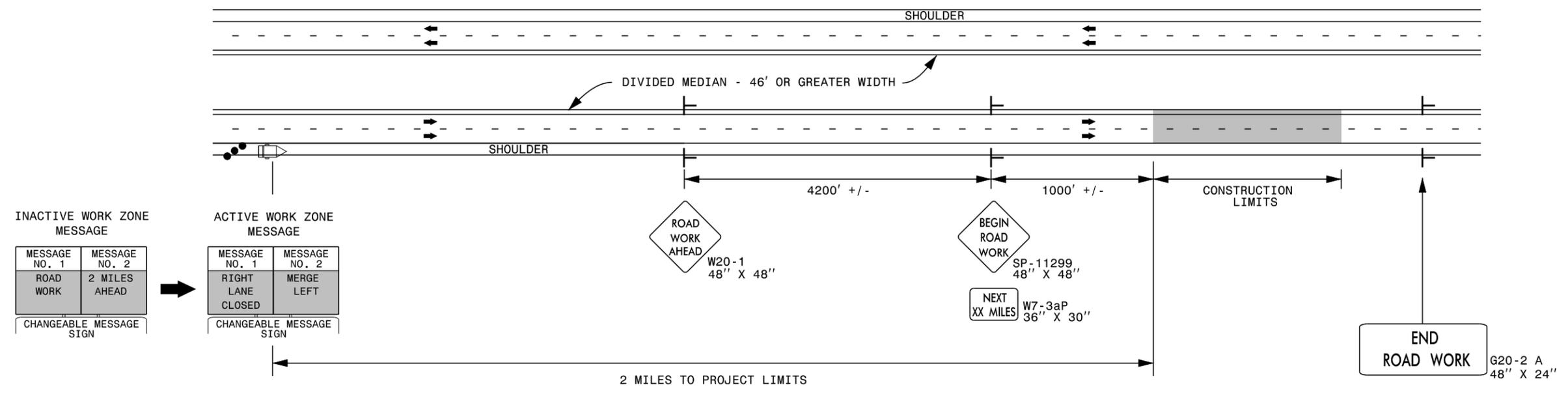
SIGNING NOTES AND PLACEMENT PER DIRECTION		
1 2	 W20-1 48" X 48" W7-3aP 24" X 18"	<p style="text-align: center;">PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)</p>
3	 SP 13107 48" X 48"	<p style="text-align: center;">PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.</p>
4	 SP 13106 48" X 48"	<p style="text-align: center;">THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</p>
5	 G20-2 A 48" X 24"	<p style="text-align: center;">PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>
		<p style="text-align: center;">NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <p>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">             W20-1 48" X 48"         </div> <div style="text-align: center;">             W20-7 A 48" X 48"         </div> </div> <p style="text-align: center;">PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p> <p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>1) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.</li> </ol>

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
WORK ZONE TRAFFIC CONTROL

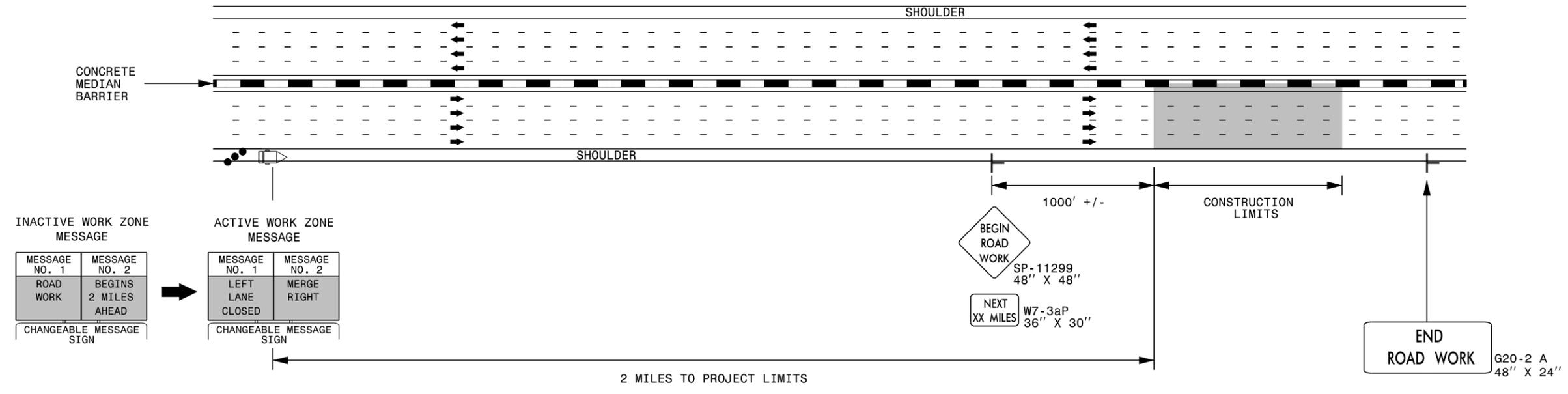
**RESURFACING  
ADVANCE WARNING SIGNS  
FOR RURAL AND SUBURBAN  
MULTI-LANE ROADWAYS  
W/ SHOULDER SECTIONS  
(DIVIDED OR UNDIVIDED)**

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## DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER



## DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER



**NOTES:**

- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6' AS MEASURED FROM THE EDGE OF PAVEMENT.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) FOR MEDIAN WIDTHS LESS THAN 46' (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
- 4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 5) INSTALL "ROAD WORK AHEAD" (W20-1) ALONG ENTRANCE RAMP 500' PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMP WITHIN THE WORK ZONE.
- 6) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER AND WITH DIVIDED MEDIANS OF 46' OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

**LEGEND**

- CHANGEABLE MESSAGE SIGN (CMS)
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC DRUM



**RESURFACING ADVANCE  
WARNING SIGNS FOR  
HIGH SPEED FACILITIES  
≥ 60 MPH**

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